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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,641	03/14/2005	Edwin Nun	266371US0PCT	7110
22850	7590	08/13/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HAILEY, PATRICIA L	
			ART UNIT 1755	PAPER NUMBER
			NOTIFICATION DATE 08/13/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/527,641	Applicant(s) NUN ET AL.	
	Examiner Patricia L. Hailey	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-13, 15-21 and 23-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-13, 15-21 and 23-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 26, 2007, has been entered.

Applicants' submission includes an amendment, in which claims 6, 7, 14, and 22 have been canceled, and new claims 30-32 have been added.

Claims 1-5, 8-13, 15-21, and 23-32 are now pending in this application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 14, 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an

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international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 8, 10-12, 27, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Urashima et al. (U. S. Patent No. 6,451,941).

Urashima et al. disclose an inorganic dispersion stabilizer characterized by a process comprising dispersing a hydrophobic inorganic oxide in an aqueous medium in the presence of a hydrophilic organic compound. See col. 6, lines 59-63 of Urashima et al.

Examples of the inorganic oxide include alumina, zirconia, silica, and titania, all in hydrophobic form. See col. 6, line 64 to col. 7, line 6 of Urashima et al., which also discloses that the oxides "may be used singly or in the form of a mixture of two or more members."

Examples of the hydrophilic organic compound include alcohols, tetrahydrofuran, N,N-dimethyl formamide, and dimethyl sulfoxide. See col. 7, line 59 to col. 8, line 7 of Urashima et al.

The amounts of the hydrophobic inorganic oxide and the hydrophilic organic compound to be incorporated into the stabilizer "impose no particular restriction"; the amount of the inorganic oxide ranges from 0.1-20 parts by weight per 100 parts by weight of the composition, and the hydrophilic organic compound ranges from 1-3000 parts by weight per 100 parts of inorganic oxide. See col. 8, lines 25-37 of Urashima et al.

In view of these teachings, Urashima et al. anticipate claims 8, 10-12, 27, and 31.

5. Claims 1-5, 9, 18-21, 24-26, 29, 30, and 32 are rejected under 35

U.S.C. 102(e) as being anticipated by Keller et al. (U. S. Patent No. 6,683,126).

Keller et al. disclose a coating composition comprising at least one powder whose particles have a hydrophobic surface; examples of these include aluminum oxide, titanium dioxide, and silicon dioxide. See col. 6, line 60 to col. 7, line 4 of Keller et al., which also discloses pyrogenic silicon dioxide as a preference, and col. 7, lines 21-27, which further discloses that the powder particles may be prepared by "the methods known for the preparation of hydrophobicized pyrogenic silica." This disclosure is considered to read upon **claims 1-4**.

The coating composition may also contain, if desired, an organic diluent or solvent; exemplary solvents include ketones, and aliphatic and aromatic hydrocarbons. See col. 7, line 62 to col. 8, line 11 of Keller et al. (considered to read upon **claims 20, 30, and 32**).

In such a composition, the solids content ranges from 0.5 to 80% by weight. See col. 8, lines 12-19 of Keller et al. (considered to read upon **claims 5, 9, and 18**).

Because Keller et al. disclose a composition comparable to that instantly claimed, it would necessarily follow that Patentees' suspension would exhibit a dynamic viscosity such as that recited in **claim 19**.

"In principle, all conventional surfaces may be coated with the coating compositions of the invention. Examples of the conventional surfaces are the surfaces of wood, metal, glass, and plastic. The coating compositions of the invention may of course also be used to coat rough and/or porous surfaces, such as concrete, plaster,

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paper, woven fabric, examples including textile woven fabric for clothing, umbrellas, tents, and marquees, and for comparable applications, and also leather and hair as well."

See col. 8, lines 36-54 of Keller et al., as well as col. 10, lines 39-51 (which discloses that Patentees' compositions are suitable for affording protection against soiling, in particular, surfaces which are exposed to weathering), and col. 11, lines 19-31; this disclosure is considered to read upon **claims 21, 24, and 25**.

With respect to **claims 26 and 29**, the recitation "coating composition" by Keller et al., along with the teachings regarding the aforementioned components and respective amounts thereof, is considered to read upon the limitation "wherein the suspension is in the form of a paste."

In view of these teachings, Keller et al. anticipate claims 1-5, 9, 18-21, 24-26, 29, 30, and 32.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 8, 13, 15-18, 23, 27, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al. (U. S. Patent No. 6,683,126) in view of Tully (U. S. Patent No. 4,102,703).

Keller et al. is relied upon for its teachings in the above 102(e) rejection of claims 1-6, 8-11, 13, 16-19, 21, and 24-29. Although Keller et al. at col. 8, lines 45-54 disclose that application of Patentees' coating composition is "in accordance with the application techniques customary in coatings technology", and further exemplify said techniques by disclosing methods such as brushing, spraying, airbrush, dipping or rolling, "with subsequent drying of the coating, during which the solvent evaporates", this reference does not explicitly teach or suggest knife coating, as recited in claims 15 and 23.

Tully discloses water-repellent coating compositions comprising a hydrophobic particulate metal or metalloid oxide, such as silica, titania, and alumina (col. 3, lines 5-23) suspended in a water-soluble polyhydric alcohol or aqueous solution thereof (col. 5, lines 42-61), can be applied to substrates such as natural fibers, woven and non-woven textiles, paper, wood, etc. (col. 8, lines 49-60), via conventional coating methods such as doctor blading (also known as "knife coating"). See col. 8, line 61 to col. 9, line 5 of Tully, which also discloses some of the same customary techniques as Keller et al. at col. 8, lines 45-54.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Keller et al. by substituting any of the known techniques disclosed therein with doctor blading ("knife coating"), as suggested by Tully, and thereby obtain Applicants' claimed invention.

Additionally, although Applicants' claims recite the term "consisting", the combined teachings of Keller et al. and Tully as stated herein are considered to continue to read upon the instant claims. Although Keller et al. disclose the presence of a binder, the reference discloses that the binder serves "to fix the powder particles on the surface of the substrate to be coated or to fix the powder surfaces to one another when the compositions are used as powders or to produce a shaped article." See col. 3, lines 31 to 35 of Keller et al. Further, the "nature of the binder depends in many cases on the desired end use and is of fairly minor importance for the success of the invention, provided the binder is sufficiently hydrophobic." See col. 4, lines 12-15 of Keller et al.

From these teachings, it would have been obvious to one having ordinary skill in the art at the time the invention was made to omit the binder of Keller et al., as it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before only involves routine skill in the art. In re Karlson, 136 U.S.P.Q. 184.

Response to Arguments

Applicants' arguments with respect to Julian et al. (U. S. Patent No. 5,500,216) are persuasive. Julian et al. do not teach or suggest the presence of either dimethylsulfoxide, toluene, tetrahydrofuran, cyclohexanone, or dimethylformamide, which is now required in Applicants' instant claims.

With respect to Keller et al. and Tully, these references are considered to continue to read upon Applicants' claims as set forth in the above rejections, as the claims rejected by Keller et al. and Tully do not exclude "a binder dissolved therein".

For these reasons, Applicants' arguments are not persuasive.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-

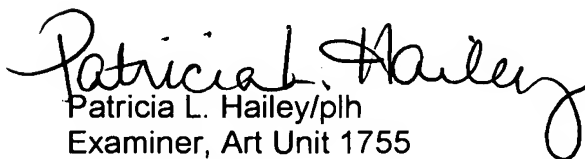
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1369. The examiner can normally be reached on Mondays-Fridays, from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Patricia L. Hailey/plh
Examiner, Art Unit 1755
August 6, 2007


J. A. LORENZO
SUPERVISORY PATENT EXAMINER